

**Statement of
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**Before the Subcommittee on
Emerging Threats and Capabilities
of the Committee on Armed Services
of the
United States Senate
4 April 2000**

Mr. Chairman
Senator Bingaman

Distinguished Members of the Committee

Thank you for the opportunity to appear before you and report on the role of U.S. Joint Forces Command in future requirements, capabilities and experimentation.

In late September of last year, President Clinton signed the Unified Command Plan revision for 1999 (UCP 99). On 1 October 1999, in accordance with UCP 99, Secretary of Defense Cohen directed U.S. Joint Forces Command to take a more active and functional role in transforming the U.S. Armed Forces to meet the challenge of the 21st Century as guided by Joint Vision 2010.

While 1 October 1999 was the implementation date, much of the actual work tasked to U.S. Joint Forces Command was not particularly new. UCP 99 codified many existing tasks, while conferring increased legitimacy and authority for our transformational duties. To that end, U.S. Joint Forces Command has focused on three overarching missions:

1. Be the chief advocate for jointness and interoperability,
2. Be the DoD executive agent for joint concept development and experimentation, and
3. Play a role in the joint requirements process.

To be an effective advocate for jointness and interoperability, we must identify those joint warfighting areas where we will have significant and constructive impacts. We then

pursue opportunities to positively influence programs that have a joint or interoperable flavor.

As Executive Agent for joint concept development and experimentation, we are identifying concepts that have overarching joint implications and opportunities and then experimenting on those concepts. After identifying the concepts and experimenting on them, we provide our findings as recommendations on Joint Warfighting capabilities.

Finally, we are engaging the joint requirements process with the empirical data from our joint experimentation. Our goal is to improve joint capabilities by influencing change in doctrine, organization, requirements and acquisition.

Joint Concept Development and Experimentation

Joint Vision 2010 serves as the context in which the Joint Experimentation program addresses the enhancement of operational warfighting capabilities, specifically in the areas of Force Application, Deployment, Sustainment of the Force, Information Superiority, and Command and Control.

The goal of Joint Experimentation is to explore and assess new joint concepts in order to provide future joint force commanders with significant joint warfighting improvements and capabilities; to enhance competitive advantage; and to preclude adversarial surprises.

The Joint Experimentation program addresses concepts within three time frames for changes to military capabilities. In the near-term, we are exploring the use of off-the-shelf technologies to enhance current combat capabilities and ensure the U.S. military maintains it's qualitative edge over existing threats. U.S. Joint Forces Command currently sponsors 10 Advanced Concept Technology Demonstrations designed to accelerate acquisition of Commercial Off The Shelf (COTS) technology to the joint warfighter.

In the mid-term, we are focusing on those concepts that support the implementation of Joint Vision 2010 and the realization of Full Spectrum Dominance. We are exploring new concepts and organizations, and emerging technologies to support the evolution of today's joint force.

In the far-term, we are seeking to identify future concepts and technologies that will result in the transformation of the force. However, we must always be prepared to recognize and implement revolutionary concepts and technologies whenever they arise.

The Joint Experimentation program is off to a strong start. The initial discussions that led to the birth of the program occurred just under two years ago. Like any newborn, we have had to learn how to crawl, then walk, before we can begin to run. But I think we are up and walking, and starting to get some traction.

When we started this work, many believed we would experience strong resistance to a joint experimentation program. Instead, we

have successfully established a collaborative community spanning the experimentation efforts of all the Services and Combatant Commands.

The extended experimentation community quickly cooperated to help with the challenging joint experimentation task. With strong support from members of Congress and the senior leadership of the Department of Defense, we have made great strides in building the program from the ground up, defining processes, identifying resources, conducting research, establishing teaming relationships, and conducting our first joint experiments.

The experimentation community has initiated serious and objective debates on how best to conduct rapid, decisive future operations. As you might guess, there are many competing ideas and strategic concepts for executing these types of operations. This summer we will be conducting some highly sophisticated and analytical wargaming that will help us further refine the joint and Service concepts, as well as explore additional alternatives proposed by industry and academia. This learning process and the extensive, rigorous "red-teaming" of the various concepts should increase and strengthen the coherence of the joint force.

Joint Experimentation—Effective Tool to Advocate Jointness

In order to be an effective advocate for jointness, U.S. Joint Forces Command seeks to gain consensus among the warfighting

and functional CINCs to establish a single joint position. Our credibility is essential to gaining that consensus, so we can then provide a single voice for joint requirements. We must bring forward factual evidence, rigorous analysis, hard rationale and demonstrable proof that DOD needs to spend money in the way we recommend it be spent.

We are engaging regularly with the other CINCs to establish the relationships that will allow us to better represent them in advocating their requirements. Together, we agree on the key joint operational issues the joint experimentation program must address. We are developing partnerships for conducting experiments that allow us to better focus the limited resources of the Department and avoid redundancies.

For example, U.S. Joint Forces Command and U.S. Pacific Command are working together to explore how we can enhance a regional CINC's ability to rapidly and effectively accomplish critical missions on the lower end of the operational spectrum, such as humanitarian assistance and non-combatant evacuation. We are also exploiting many of the lessons U.S. European Command gleaned from last year's Kosovo operation, while building collaborative strategies with the functional Combatant Commands to ensure their needs and areas of expertise are included in the joint experimentation program.

FY 99 Program Milestones

The U.S. Joint Forces Command Joint Experimentation program is addressing the most compelling joint issues facing the Department of Defense, including many that were clearly evident in recent operations. In FY 99, we began development of the joint warfighting concepts that address these compelling joint issues. Those concepts underwent minor modification for the FY 00 Campaign Plan, and now include Rapid Decisive Operations, Attack Operations Against Critical Mobile Targets, Adaptive Joint Command and Control, Joint Interactive Planning, Common Relevant Operational Picture, Focused Logistics: Enabling Early Decisive Operations, Information Operations, Forcible Entry Operations, and Strategic Deployment.

- **Rapid Decisive Operations** serves as an overarching integrating concept for the other joint concepts and addresses the need to investigate coercive operations. The key characteristics of Rapid Decisive Operations reflect immediate, high-tempo, continuous overwhelming operations, the ability to shape and control the battlespace, integrated application of precision effects and dominant maneuver, and the absence of a protracted campaign.

- **Attack Operations Against Critical Mobile Targets** is focused on improvement in those processes that enable detection, decision and engagement of critical mobile targets. In our Attack

Operations work, we are addressing threats to our warfighting capabilities posed by mobile systems, including theater ballistic missiles and mobile integrated air defense systems.

- **Adaptive Joint Command and Control** investigates alternatives to existing joint force headquarters and component force organizations that leverage advances in information technologies. The objectives of Adaptive Joint Command and Control are improved synchronization of joint operations, an adaptive joint force structure, and a smaller joint headquarters footprint.

- **Joint Interactive Planning** seeks alternative planning and decision support tools to enable interactive, simultaneous, parallel planning to greatly reduce the decision cycle. Dynamic tasking and retasking of forces, quicker decisions and better control over the operational tempo are key elements of this concept.

- **Common Relevant Operational Picture** reflects a "system of systems" approach that provides joint force commander and subordinates at every level with timely, fused, accurate, assured, and relevant information. Single Integrated Air Picture is an example of a subset of this concept.

- **Focused Logistics: Enabling Early Decisive Operations** focuses on providing the Joint Force Commander with significantly improved joint and Service support through fused, tailored, time-definite logistics. It includes reduced dependence upon fixed

port facilities, improved business practices, and better information fusion.

- **Information Operations** recognizes the need to protect and assure "friendly" information while providing the joint force commander with the ability to influence, disrupt, deny, exploit, or destroy adversary's capabilities. Information Operations is a key element of Information Superiority.

- **Forcible Entry Operations** focuses upon rapid deployment and employment of joint forces to penetrate and conduct decisive operations within an adversary's territory. Forcible Entry Operations considers alternatives to overcome denial of access and enabling follow-on sustained combat operations.

- **Strategic Deployment** seeks an optimum mix of in-theater forces, deployment assets, pre-positioned equipment and near-theater staging alternatives to enable rapid decisive operations. Strategic Deployment is focused on joint force projection, rapid transition to combat, and support to rapid intra-theater maneuver of forces.

We focused our initial efforts on developing these joint concepts that address the compelling issues facing our joint force commander today, and completing six of nine of the initial baseline collective assessments that determine what work has been done across the Department of Defense in each of these areas.

We conducted the program's first experiment within the Attack Operations Against Critical Mobile Targets concept, which provided

us with a better understanding of some of the critical issues in the attack operations process, and identified areas of future exploration. We also gained invaluable experience on how to conduct experiments. Key results indicate the need for better automatic target recognition capabilities, a comprehensive sensor fusion capability to better enable dynamic tasking and retasking of sensors and weapons, and a better understanding of the implications and use of unmanned aerial vehicles across the range of battlefield operations. These results also point towards the need for an accurate picture of the battlespace to enable the dominant battlespace awareness envisioned in Joint Vision 2010.

Also in FY 99, our Joint Experimentation Directorate advocated and chartered the new Alliance of All Service Battle Labs. This Alliance, in which our Joint Experimentation Directorate is a member and Secretariat, is a collaborative environment for sharing information and experimentation activities among ourselves and the different battle labs from all of the Services. The Alliance of All Service Battle Labs provides a unique forum for 25 warfighting experimentation entities to discuss concepts and systems under development, share experimentation results, avoid duplication of efforts and identify future collaborative warfighting experimentation opportunities. Alliance members have identified twelve (12) common areas for future collaboration:

Stand-Off Precision Air Drop

Non-Lethal, Non-Kinetic Capabilities

Unmanned Aerial Vehicles

Force Protection

Command and Control Centers

Global Positioning System

Mobility, Lighter Force and Deployability Issues

Communications Infrastructure in Support of C4ISR

Coalition Issues

Theater Early Warning

Multi-Spectral Imagery

CONOPs for "Secure" Aerial Port of Debarkation/Base in an
Expeditionary AOR

Finally, our Science & Technology division within the Joint Experimentation directorate established a process that both ensures incorporation of the Joint Warfighting Science and Technology Plan into the joint experimentation process, and incorporates the technology requirements of new concepts back into the plan. Additionally, our Industry Day gave us the opportunity to inform industry of anticipated military technology needs. These programs have been well received within the industrial community. As we mature, our efforts will enable industries to focus their own research and development efforts to meet future Department of Defense needs.

Our FY 00 Program

This year we are building on what we learned from our FY 99 AOACMT experimentation successes, which dealt primarily with attack operations against mobile theater missile systems. We are also integrating much of what we learned from the Kosovo campaign about the compelling military issues we face in such operations.

Our aircraft were threatened in that campaign by mobile air defense systems integrated through a distributed command and control system. Kosovo demonstrated that today's operational concepts and technologies limit our ability to find and eliminate this threat. However, the requirements for locating, tracking, and eliminating these mobile air defense systems are virtually identical to the challenges we have been addressing in our attack operations work against mobile theater missiles. In our experimentation this year, we have added some mobile air defense systems as targets. We plan to expand our investigation of these targets in the future, then evaluate the findings we gathered in last year's experiments against this expanded operational environment.

We are developing a concept for Rapid Decisive Operations in which we complement our substantial precision engagement capabilities with a highly deployable, mobile, and lethal ground component that can quickly set the conditions for decisive precision engagement. This combination of decisive maneuver and

engagement has the potential to reduce the time necessary for success from months to days. Our analytical wargame this summer will explore three separate candidate operational concepts for conducting Rapid Decisive Operations against a common adversary and scenario. It combines a seminar wargame with a robust, constructive, non-attrition-based simulation. The seminar portion of the wargame is scheduled for 15 May through 30 June. It will be followed by the simulation excursions between mid August and early October. An essential element of this event will be an understanding of how precision effects allow maneuver to shape the battlespace and how maneuver creates opportunities for precision engagement.

We can also improve our ability to win the battle for information superiority. This requires a concept for better managing the immense volume of data generated by our current and emerging systems, and providing our operational commanders with concise, accurate and timely knowledge of the battlespace. Our Joint Experimentation program is working on potential solutions to the requirements of the Common Relevant Operational Picture, a capability for Joint Interactive Planning, and means for Adaptive Joint Command and Control. Taken together, this package will provide us a tremendous enhancement to our current ability to use information as a powerful battlefield capability.

We have an opportunity in FY 00 to check on our capabilities in these areas during our first major field experimental activity. The FY 00 program will culminate in the Millennium Challenge '00

experiment, the first in a series of major field experiments designed to synchronize, and then integrate, the Services' major field experiments.

Millennium Challenge '00 will be conducted primarily the week of 5-12 September 2000 as simultaneous and near-simultaneous experimentation events in partnership with the Services and other CINCs. It will provide the joint context for the Air Force's Joint Expeditionary Force Experiment, the Army's Advanced Warfighting Experiment, the Navy's Fleet Battle Experiment-Hotel, and the Marine's Millennium Dragon. Millennium Challenge '00 focuses on Rapid Decisive Operations and will provide ways to improve our joint deployment process, develop tactics, techniques and procedures (TTP) for joint collaborative planning tools, identify essential elements of the common relevant operational picture, and prototype the experiment design and execution framework for future experiments. It will also be synchronized with U.S. Forces Korea's Ulchi Focus Lens exercise to develop and validate our own Precision Engagement Concept of Operations.

In addition to providing a joint scenario, collaborative tools, and context for the Service experiments, the Millennium Challenge series of experiments will serve as a venue to explore the operational aspects of Rapid Decisive Operations, which will culminate in our FY 04 major joint integrating event.

In an effort to accelerate the benefits and impact from the Joint Experimentation program, we are also considering adding a Millennium Challenge '02 event to the series, if Service

agreements, manpower issues, funding and other details can be worked out. While we are pleased we were able to collaborate and synchronize with the Services so quickly for Millennium Challenge '00, we realize it is only an initial step in a program of growing complexity. We also realize our goal of truly integrating the Services' major field experiments in FY 04 is a leap from these beginnings. Based on the many issues involved, we are looking at what would be needed to execute an intermediate step in FY 02, using the Services' initial elements of their own "transformed" forces in a consolidated, integrated experiment.

Lastly, we are increasingly engaged with International Concept Development and Experimentation programs. Our purpose is to ensure the future joint force will have the requisite capabilities to rapidly form coalitions of willing international partners and prosecute operations as a combined force. This requirement is an essential element of the desired end-state in each of our key concepts. In fact, our first allied Liaison Officer is already on-board with our Joint Experimentation team, while several other allies are preparing to commit personnel to the mission. Our international work is greatly enhanced by my dual role as NATO's Supreme Allied Commander Atlantic, with the inherent connections enhancing the work being done by my NATO command in this same area.

Advanced Concept Technology Demonstrations

In the near-term, the Advanced Concept Technology Demonstration program has been an effective means of getting state-of-the-art technology to the warfighter. During Operation Allied Force, 20 percent of the Department of Defense's current Advanced Concept Technology Demonstrations were used to support Allied/Coalition operations. In FY 00, U.S. Joint Forces Command is sponsoring 10 Advanced Concept Technology Demonstrations, of which several are on the verge of giving joint warfighting commanders significant new capabilities. Two examples include the High Altitude Unmanned Aerial Vehicle (Global Hawk) with its long-dwell capability and superior sensors, and Link 16/Joint Variable Message Format Interoperability ACTD, which successfully fuses disparate data links, essential for a Single Integrated Air Picture. Another recent example of a successful ACTD is the Predator UAV that has transitioned to the active force and was the sensor of choice in the Kosovo operation.

The work underway in our Joint Experimentation program is more than just relevant to the critical joint operational issues of both today and tomorrow. It is essential to rapidly developing, assessing, and implementing the solutions we need.

Congressional Help for Joint Experimentation

In Section 923 of the Conference Report on House Resolution 3616, concerning the Sense of Congress on Joint Experimentation, you asked me to report to you annually through the Secretary of Defense on my assessment of the authority and resources provided me to accomplish this mission. I would like to take this opportunity to ask your support to ensure our efforts are not constrained by restrictions on the scope of our activities. For the experimentation program to be effective, we must be able to explore the full range of concepts and alternatives, from incremental near-term enhancements to truly revolutionary capabilities in the far-term.

I also need your support with providing the precious resource of time to do this right. The most fundamental and important issues we are exploring need to be thoroughly researched, developed, and assessed. Artificial expectations that we can solve the incredibly complex issues we have taken on in a matter of months will drive us to poorly considered proposals and commit us to expensive programs that may not provide the best answers to these challenges. Too much is at stake to risk exchanging solid conceptual research and development for artificially expedient guesses on the future.

True experimentation is a disciplined, iterative process, designed to gain knowledge. Although a conceptual experiment may fail, all carefully constructed and executed experiments that lead to better knowledge and understanding of the concept are fully successful. Experimentation enables us to ask the right questions

and to gain the empirical evidence that will support our decisions about the future joint force. As we build toward our Joint Vision 2010 force, we must ensure jointness is integrated from the beginning. While we recognize and support the core competencies of the Services, it is critical to provide a joint context allowing the Services to build toward a universal joint vision and architecture. The joint experimentation program is essential to developing that context and to helping us make informed decisions on the nature and balance of the components of the future joint force.

Joint Experimentation provides credibility for joint requirements by providing empirical evidence that will stand up to the scrutiny of the requirements review process. It provides a level of confidence in our decisions before we recommend committing significant resources to future systems development. We do not need to be engaged in every requirements issue. We intend, however, to be directly involved in all requirements discussions and decisions when joint interoperability is an issue. Such advocacy demands that we carry a joint concept from its intellectual beginnings through the requirements process to implementation.

U.S. Joint Forces Command's Role in Joint Requirements Process

UCP 99 provided U.S. Joint Forces Command with a clear mandate to advocate jointness for the Armed Forces. A very important aspect of this responsibility is our involvement in the Joint Requirements process, particularly in the development of Capstone Requirements Documents, or CRDs.

As a result, U.S. Joint Forces Command has begun to vigorously advocate jointness and interoperability in the requirements generation process. Our initial analysis identified several areas that required an aggressive joint advocate. So, we took the lead in the following Capstone Requirements Documents: Combat Identification (CID), Theater Air & Missile Defense (TAMD), Global Information Grid (GIG) and Information Dissemination Management (IDM).

We are moving into the requirements generation process pragmatically by choosing areas that have the highest payoff. We feel that doing a few things right is better than doing too many things in a mediocre fashion. Through a deliberative process, we have selected nine (9) joint warfighting areas we believe will have the greatest immediate impact on joint warfighting. Our nine joint requirements focus areas are:

Theater Air and Missile Defense (TAMD)

Command and Control

Combat Identification (CID)

Intelligence, Surveillance and Reconnaissance (ISR)
Attack Operations Against Critical Mobile Targets
Joint Deployment Process
Joint Simulation System (JSIMS)
Unmanned Aerial Vehicles (UAV)
Joint Fires and Deep Strike

Concurrently, U.S. Joint Forces Command is provided many opportunities to influence the development of, and approval process for, all Mission Needs Statements (MNS), regardless of acquisition category or origination source. We influence each MNS through the formal JROC staffing or through the Joint Staff J6 Interoperability certification process. This ensures we review each and every MNS for interoperability compliance.

We also influence all Service-generated Operational Requirements Documents (ORDs) while they are in staffing, much like a MNS. The processes for staffing and approval for an ORD and a MNS are identical, and therefore the influence is similar. This is critically important to us, because an ORD is the document that defines a program's Key Performance Parameters (KPP) for its projected capability. KPPs describe how a given capability will work within a larger Operational Architecture, and the definition of the Joint Information Exchange Requirements used to measure program success. An example is interoperability, which is now a mandated KPP for all programs. Once the JROC or service

acquisition executive approves an ORD, that ORD migrates from requirements generation into system acquisition.

Joint Requirements Oversight Council & Defense Acquisition Board

Representation

I have been afforded the opportunity and have in fact participated in deliberations of the JROC. We have also been provided the opportunity by Dr. Gansler to have U.S. Joint Forces Command representation at all levels within the acquisition decision process. This means U.S. Joint Forces Command has representation at the Integration Process Team level, while I engage at the Defense Acquisition Board (DAB) level. U.S. Joint Forces Command selectively participates on those issues that fall within the command's focus areas and offer the greatest opportunity to advance joint equities. While industry and DoD work the development of a new capability by applying or developing technology to meet the specifications set forth in an ORD at Milestone I, U.S. Joint Forces Command is present and participating. To date, these processes have caused a healthy partnership to develop with the Services.

Joint Experimentation's Impact on Requirements--It is not only

Material

Many incorrectly presume Joint Requirements address only materiel items. This is not the case. Joint Requirements include all doctrinal, organizational, training and education, materiel, leader development and personnel areas. In fact, there are some potentially great, near-term rewards from non-materiel changes. For example, the first recommendation arising from initial experimentation efforts into Attack Operations Against Critical Mobile Targets is an organizational and doctrinal proposal for a Critical Mobile Target Attack Cell within the Joint Task Force.

Inputs Back to Congress

The FY 00 Defense Authorization Act amended Section 1033: Section 153 of Title 10 in a significant manner regarding the combatant commanders' requirements process. In an effort to strengthen the Unified CINCs' voice within the resourcing process, Title 10 now requires an annual report on combatant command requirements: "(1) Not later than August 15 of each year, the Chairman shall submit to the committees of Congress...a report on the requirements of the combatant commands... The report shall contain the following:

- A. A consolidation of the integrated priority lists of requirements of the combatant commands.
- B. The Chairman's views on the consolidated lists."

We view this development as an opportunity to improve the voice of the Joint warfighters within the requirements process. Submission of the CINCs' Integrated Priority Lists will continue to go directly to the Secretary for action. Supported by the new language, however, the Chairman will now submit a consolidated Integrated Priority List to Congress highlighting critical CINC warfighting deficiencies in need of resourcing support.

Summary

In summary, U.S. Joint Forces Command has a mandate to lead the transformation of the U.S. Armed Forces to a more effective joint warfighting military. With the existing Unified CINC, Joint Staff, Office of the Secretary of Defense relationships, we are moving forward as the Secretary Cohen directed in October 1999. Through our Joint Concept Development and Experimentation efforts we are identifying and analyzing the high payoff joint programs for incorporation into the Joint Requirements process. As the warfighting CINCs' joint representative on both the Joint Requirements Oversight Council and the Defense Acquisition Board, we will advocate the requirement for jointness and interoperability in all the appropriate programs. U.S. Joint Forces Command is engaged and has moved out. Our goal is to significantly improve the joint warfighting capability of the

Unified Commanders in Chiefs - just as the drafters of Goldwater-Nichols envisioned.